CLAIMS

What is claimed is:

1. A method of inhibiting fibrosis in a patient said method comprising administering a therapeutically effective amount of somatostatin or a somatostatin agonist to said patient.

2. A method of claim 1, wherein said method comprises administering a therapeutically effective amount of a somatostatin agonist to said patient.

3. A method of claim 2, wherein said fibrosis is in the kidney.

4. A method of claim 2, wherein said fibrosis is in the lung.

5. A method of claim 2, wherein said fibrosis is in the liver.

6. A method of claim 2, wherein said fibrosis is in the skin.

7. A method of claim 2, wherein said fibrosis is induced by chemotherapy.

8. A method of claim 2, wherein said somatostatin agonist is administered parenterally.

9. A method of claim 8, wherein said somatostatin agonist is administered in a sustained release formulation.

10. A method of claim 3, wherein said somatostatin agonist is administered parenterally.

11. A method of claim 10, wherein said somatostatin agonist is administered in a sustained release formulation.

12. A method of claim 4, wherein said somatostatin agonist is administered parenterally.

13. A method of claim 12, wherein said somatostatin agonist is administered in a sustained release formulation.

14. A method of claim 5, wherein said somatostatin agonist is administered parenterally.

15. A method of claim 14, wherein said somatostatin agonist is administered in a sustained release formulation.

16. A method of claim 6, wherein said somatostatin agonist is administered parenterally.

17. A method of claim 2, wherein said somatostatin agonist is administered topically.

18. A method of claim 7, wherein said somatostatin agonist is administered parenterally.

19. A method of claim 18, wherein said somatostatin agonist is administered in a sustained release formulation.

20. A method according to claim 2 wherein the fibrosis is induced by radiation.

21. A method according to claim 3 wherein the fibrotic disorder in the kidney is glomerulonephritis.

22. A method according to claim 3 wherein the fibrotic disorder in the kidney is diabetic nephropathy.

23. A method according to claim 3 wherein the fibrotic disorder in the kidney is allograft rejection.

24. A method according to claim 3 wherein the fibrotic disorder in the kidney is HIV nephropathy.

25. A method according to claim 4 wherein the fibrotic disorder in the lung is idiopathic fibrosis.

26. A method according to claim 4 wherein the fibrotic disorder in the lung is autoimmune fibrosis.

27. A method according to claim 5 wherein the fibrotic disorder in the liver is cirrhosis.

28. A method according to claim 5 wherein the fibrotic disorder in the liver is veno-occlusive disease.

29. A method according to claim 6 wherein the fibrotic disorder in the skin is systemic sclerosis.

30. A method according to claim 6 wherein the fibrotic disorder in the skin is keloids.

31. A method according to claim 6 wherein the fibrotic disorder in the skin is scars.

32. A method according to claim 6 wherein the fibrotic disorder in the skin is eosinophilia-myalgia syndrome.

33. A method according to claim 2 wherein the fibrosis is of the central nervous system.

34. A method according to claim 33 wherein the fibrotic disorder is intraocular fibrosis.

35. A method according to claim 2 wherein the fibrosis is in bone or bone marrow.

36. A method according to claim 2 wherein the fibrosis is in the cardiovascular system.

37. A method according to claim 2 wherein the fibrosis is in an endocrine organ.

38. A method according to claim 2 wherein the fibrosis is in the gastrointestinal system.

39. A method according to claim 7 wherein the fibrosis induced by chemotherapy is in the kidney.

40. A method according to claim 7 wherein the fibrosis induced by chemotherapy is in the lung.

41. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is in the liver.

42. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is in the skin.

43. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is of the central nervous system.

44. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is in bone or bone marrow.

45. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is in the cardiovascular system.

46. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is in an endocrine organ.

47. A method according to claim 7 wherein the fibrosis induced by the chemotherapy is in the gastrointestinal system.

48. A method according to claim 20 wherein the fibrosis induced by radiation is in the kidney.

49. A method according to claim 20 wherein the fibrosis induced by radiation is in the lung.

50. A method according to claim 20 wherein the fibrosis induced by the radiation is in the liver.

51. A method according to claim 20 wherein the fibrosis induced by the radiation is in the skin.

52. A method according to claim 20 wherein the fibrosis induced by the radiation is of the central nervous system.

53. A method according to claim 20 wherein the fibrosis induced by the radiation is in bone or bone marrow.

54. A method according to claim 20 wherein the fibrosis induced by the radiation is in the cardiovascular system.

55. A method according to claim 20 wherein the fibrosis induced by the radiation is in an endocrine organ.

56. A method according to claim 20 wherein the fibrosis induced by the radiation is in the gastrointestinal system.

57. A method according to claim 2 wherein the fibrosis is induced by a drug or a combination of drugs.

58. A method according to claim 2 wherein the fibrosis is induced by a disease state.

59. A method according to claim 2 wherein the fibrosis is induced by an environmental or an industrial factor.

60. A method according to claim 2 wherein the fibrosis is induced by an immune reaction.

61. A method of inhibiting overexpression of TGF-β which comprises administering to a subject an effective amount of somatostatin, somatostatin agonist or a pharmaceutically acceptable salt thereof.

62. A method according to claim 61 wherein a somatostatin agonist is administered.

63. A method according to claim 62 wherein the

somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 1 than the other human somatostatin sub-type receptors.

64. A method according to claim 62 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 2 than the other human somatostatin sub-type receptors.

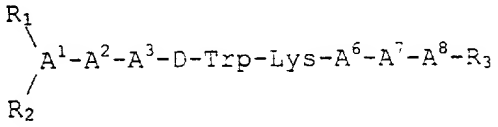
65. A method according to claim 62 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 3 than the other human somatostatin sub-type receptors.

66. A method according to claim 62 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 4 than the other human somatostatin sub-type receptors.

67. A method according to claim 62 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 5 than the other human somatostatin sub-type receptors.

68. A method according to claim 62 wherein the somatostatin agonist has a higher binding affinity for two or more of human somatostatin receptor sub-types 1, 2, 3, 4 and/or 5.

69. A method according to claim 62 wherein the somatostatin agonist is



or a pharmaceutically acceptable salt thereof, wherein

A^1 is a D- or L- isomer of Ala, Leu, Ile, Val, Nle, Thr, Ser, β-Nal, β-Pal, Trp, Phe, 2,4-dichloro-Phe, pentafluoro-Phe, p-X-Phe, or o-X-Phe;

A^2 is Ala, Leu, Ile, Val, Nle, Phe, β-Nal, pyridyl-Ala, Trp, 2,4-dichloro-Phe, pentafluoro-Phe, o-X-Phe, or p-X-Phe;

A^3 is pyridyl-Ala, Trp, Phe, β-Nal, 2,4-dichloro-Phe, pentafluoro-Phe, o-X-Phe, or p-X-Phe;

A^6 is Val, Ala, Leu, Ile, Nle, Thr, Abu, or Ser;

A^7 is Ala, Leu, Ile, Val, Nle, Phe, β-Nal, pyridyl-Ala, Trp, 2,4-dichloro-Phe, pentafluoro-Phe, o-X-Phe, or p-X-Phe;

A^8 is a D- or L-isomer of Ala, Leu, Ile, Val, Nle, Thr, Ser, Phe, β-Nal, pyridyl-Ala, Trp, 2,4-dichloro-Phe, pentafluoro-Phe, p-X-Phe, or o-X-Phe;

wherein X for each occurrence is independently selected from the group consisting of CH_3, Cl, Br, F, OH, OCH_3 and NO_2;

each R_1 and R_2, independently, is H, lower acyl or lower alkyl; and R_3 is OH or NH_2; provided that at least one of A^1 and A^8 and one of A^2 and A^7 must be an aromatic amino acid; and further provided that A^1, A^2, A^7 and A^8 cannot all be aromatic amino acids.

70. A method according to claim 62 wherein the somatostatin agonist is

H-D-Phe-p-chloro-Phe-Tyr-D-Trp-Lys-Thr-Phe-Thr-NH_2;

H-D-Phe-p-NO_2-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2;

H-D-Nal-p-chloro-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2;

H-D-Phe-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-NH_2;

H-D-Phe-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2;

H-D-Phe-p-chloro-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2; or

H-D-Phe-Ala-Tyr-D-Trp-Lys-Val-Ala-β-D-Nal-NH_2 or a pharmaceutically acceptable salt thereof.

71. A method according to claim 62 wherein the somatostatin agonist is

D-Phe-Cys-Phe-D-Trp-Lys-Thr-Cys-β-Nal-NH_2;

D-Phe-Cys-Tyr-D-Trp-Lys-Thr-Cys-β-Nal-NH_2;

D-β-Nal-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

D-Phe-Cys-Tyr-D-Trp-Lys-Thr-Pen-Thr-NH_2;

D-Phe-Cys-Phe-D-Trp-Lys-Thr-Pen-Thr-NH_2;

D-Phe-Cys-Tyr-D-Trp-Lys-Thr-Pen-Thr-OH;

D-Phe-Cys-Phe-D-Trp-Lys-Thr-Pen-Thr-OH;

Gly-Pen-Phe-D-Trp-Lys-Thr-Cys-Thr-OH;

Phe-Pen-Tyr-D-Trp-Lys-Thr-Cys-Thr-OH;

Phe-Pen-Phe-D-Trp-Lys-Thr-Pen-Thr-OH;

H-D-Phe-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-ol;

H-D-Phe-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

H-D-Trp-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH_2;

H-D-Trp-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH_2;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Trp-NH_2;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH_2;

Ac-D-Phe-Lys*-Tyr-D-Trp-Lys-Val-Asp-Thr-NH_2, wherein an amide bridge is between Lys* and Asp;

Ac-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Bu)-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Et)$_2$-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-L-hArg(Et)$_2$-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Phe-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NHEt;

Ac-L-hArg(CH_2-CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys(Me)-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys(Me)-Thr-Cys-Thr-NHEt;

Ac-hArg(CH_3, hexyl)-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

H-hArg(hexyl$_2$)-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NHEt;

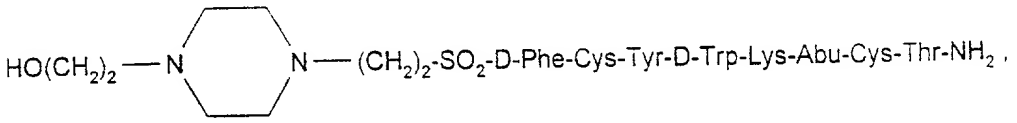
cyclo (N-Me-Ala-Tyr-D-Trp-Lys-Thr-Phe);
cyclo (Pro-Tyr-D-Trp-Lys-Thr-Phe);
cyclo (Pro-Phe-D-Trp-Lys-Thr-Phe);
cyclo (Pro-Phe-L-Trp-Lys-Thr-Phe);
cyclo (Pro-Phe-D-Trp(F)-Lys-Thr-Phe);
cyclo (Pro-Phe-Trp(F)-Lys-Thr-Phe);
cyclo (Pro-Phe-D-Trp-Lys-Ser-Phe);
cyclo (Pro-Phe-D-Trp-Lys-Thr-p-Cl-Phe);
cyclo (D-Ala-N-Me-D-Phe-D-Thr-D-Lys-Trp-D-Phe);
cyclo (D-Ala-N-Me-D-Phe-D-Val-Lys-D-Trp-D-Phe);
cyclo (D-Ala-N-Me-D-Phe-D-Thr-Lys-D-Trp-D-Phe);
cyclo (D-Abu-N-Me-D-Phe-D-Val-Lys-D-Trp-D-Tyr);
cyclo (Pro-Tyr-D-Trp-t-4-AchxAla-Thr-Phe);
cyclo (Pro-Phe-D-Trp-t-4-AchxAla-Thr-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-Lys-Val-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-t-4-AchxAla-Thr-Phe);
cyclo (Pro-Tyr-D-Trp-4-Amphe-Thr-Phe);
cyclo (Pro-Phe-D-Trp-4-Amphe-Thr-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-4-Amphe-Thr-Phe);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba-Gaba);
cyclo (Asn-Phe-D-Trp-Lys-Thr-Phe);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-$NH(CH_2)_4CO$);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-β-Ala);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-D-Glu)-OH;
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe);
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-Gly);
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gly);
cyclo (Asn-Phe-Phe-D-Trp(F)-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp(NO_2)-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-Trp(Br)-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe(I)-Gaba);

cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Tyr(But)-Gaba);
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Pro-Cys)-OH;
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Pro-Cys)-OH;
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Tpo-Cys)-OH;
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-MeLeu-Cys)-OH;
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-Phe-Gaba);
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-D-Phe-Gaba);
cyclo (Phe-Phe-D-Trp(5F)-Lys-Thr-Phe-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys(Ac)-Thr-Phe-NH-$(CH_2)_3$-CO);
cyclo (Lys-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba);
cyclo (Lys-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba); or
cyclo (Orn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba) or a pharmaceutically acceptable salt thereof.

72. A method according to claim 62 wherein the somatostatin agonist is D-β-Nal-Cys-Tyr-D-Trp-Lys-Thr-Cys-Thr-NH_2 or a pharmaceutically acceptable salt thereof.

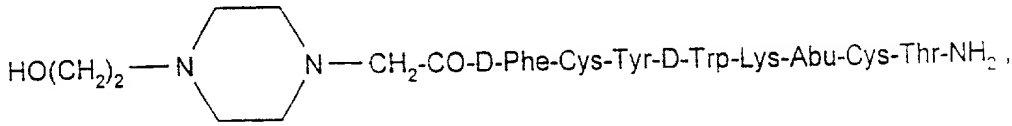
73. A method according to claim 62 wherein the somatostatin agonist is H-Cys-Phe-Phe-D-Trp-Lys-Thr-Phe-Cys-NH_2 or a pharmaceutically acceptable salt thereof.

74. A method according to claim 62 wherein the somatostatin agonist is



or a pharmaceutically acceptable salt thereof.

75. A method according to claim 62 wherein the somatostatin agonist is



or a pharmaceutically acceptable salt thereof.

76. A method according to claim 62 wherein the somatostatin agonist is D-Phe-cyclo(Cys-Phe-D-Trp-Lys-Thr-Cys)-Thr-ol or a pharmaceutically acceptable salt thereof.

77. A method according to claim 2 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 1 than the other human somatostatin sub-type receptors.

78. A method according to claim 2 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 2 than the other human somatostatin sub-type receptors.

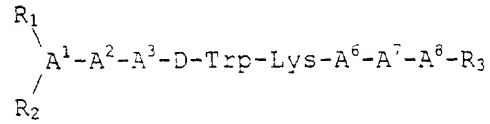
79. A method according to claim 2 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 3 than the other human somatostatin sub-type receptors.

80. A method according to claim 2 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 4 than the other human somatostatin sub-type receptors.

81. A method according to claim 2 wherein the somatostatin agonist has a higher binding affinity for human somatostatin sub-type receptor 5 than the other human somatostatin sub-type receptors.

82. A method according to claim 2 wherein the somatostatin agonist has a higher binding affinity for two or more of human somatostatin receptor sub-types 1, 2, 3, 4 and/or 5.

83. A method according to claim 2 wherein the somatostatin agonist is



or a pharmaceutically acceptable salt thereof, wherein

A^1 is a D- or L- isomer of Ala, Leu, Ile, Val, Nle, Thr, Ser, β-Nal, β-Pal, Trp, Phe, 2,4-dichloro-Phe, pentafluoro-Phe, p-X-Phe, or o-X-Phe;

A^2 is Ala, Leu, Ile, Val, Nle, Phe, β-Nal, pyridyl-Ala, Trp, 2,4-dichloro-Phe, pentafluoro-Phe, o-X-Phe, or p-X-Phe;

A^3 is pyridyl-Ala, Trp, Phe, β-Nal, 2,4-dichloro-Phe, pentafluoro-Phe, o-X-Phe, or p-X-Phe;

A^6 is Val, Ala, Leu, Ile, Nle, Thr, Abu, or Ser;

A^7 is Ala, Leu, Ile, Val, Nle, Phe, β-Nal, pyridyl-Ala, Trp, 2,4-dichloro-Phe, pentafluoro-Phe, o-X-Phe, or p-X-Phe;

A^8 is a D- or L-isomer of Ala, Leu, Ile, Val, Nle, Thr, Ser, Phe, β-Nal, pyridyl-Ala, Trp, 2,4-dichloro-Phe, pentafluoro-Phe, p-X-Phe, or o-X-Phe;

wherein X for each occurrence is independently selected from the group consisting of CH_3, Cl, Br, F, OH, OCH_3 and NO_2;

each R_1 and R_2, independently, is H, lower acyl or lower alkyl; and R_3 is OH or NH_2; provided that at least one of A^1 and A^8 and one of A^2 and A^7 must be an aromatic amino acid; and further provided that A^1, A^2, A^7 and A^8 cannot all be aromatic amino acids.

84. A method according to claim 2 wherein the somatostatin agonist is

H-D-Phe-p-chloro-Phe-Tyr-D-Trp-Lys-Thr-Phe-Thr-NH_2;

H-D-Phe-p-NO_2-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2;

H-D-Nal-p-chloro-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2;

H-D-Phe-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-NH_2;

H-D-Phe-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2;

H-D-Phe-p-chloro-Phe-Tyr-D-Trp-Lys-Val-Phe-Thr-NH_2; or

H-D-Phe-Ala-Tyr-D-Trp-Lys-Val-Ala-β-D-Nal-NH_2 or a pharmaceutically acceptable salt thereof.

85. A method according to claim 2 wherein the somatostatin agonist is

D-Phe-Cys-Phe-D-Trp-Lys-Thr-Cys-β-Nal-NH_2;

D-Phe-Cys-Tyr-D-Trp-Lys-Thr-Cys-β-Nal-NH_2;

D-β-Nal-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

D-Phe-Cys-Tyr-D-Trp-Lys-Thr-Pen-Thr-NH_2;

D-Phe-Cys-Phe-D-Trp-Lys-Thr-Pen-Thr-NH_2;

D-Phe-Cys-Tyr-D-Trp-Lys-Thr-Pen-Thr-OH;

D-Phe-Cys-Phe-D-Trp-Lys-Thr-Pen-Thr-OH;

Gly-Pen-Phe-D-Trp-Lys-Thr-Cys-Thr-OH;

Phe-Pen-Tyr-D-Trp-Lys-Thr-Cys-Thr-OH;

Phe-Pen-Phe-D-Trp-Lys-Thr-Pen-Thr-OH;

H-D-Phe-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-ol;

H-D-Phe-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

H-D-Trp-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH_2;

H-D-Trp-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH_2;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Trp-NH_2;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH_2;

Ac-D-Phe-Lys*-Tyr-D-Trp-Lys-Val-Asp-Thr-NH_2, wherein an amide bridge is between Lys* and Asp;

Ac-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Bu)-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Et)$_2$-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-L-hArg(Et)$_2$-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Phe-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NHEt;

Ac-L-hArg(CH_2-CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys(Me)-Thr-Cys-Thr-NH_2;

Ac-D-hArg(CH_2CF_3)$_2$-Gly-Cys-Phe-D-Trp-Lys(Me)-Thr-Cys-Thr-NHEt;

Ac-hArg(CH_3, hexyl)-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

H-hArg(hexyl)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH_2;

Ac-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NHEt;

Ac-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Phe-NH$_2$;

Propionyl-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys(iPr)-Thr-Cys-Thr-NH$_2$;

Ac-D-β-Nal-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Gly-hArg(Et)$_2$-NH$_2$;

Ac-D-Lys(iPr)-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH$_2$;

Ac-D-hArg(CH$_2$CF$_3$)$_2$-D-hArg(CH$_2$CF$_3$)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH$_2$;

Ac-D-hArg(CH$_2$CF$_3$)$_2$-D-hArg(CH$_2$CF$_3$)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Phe-NH$_2$;

Ac-D-hArg(Et)$_2$-D-hArg(Et)$_2$-Gly-Cys-Phe-D-Trp-Lys-Thr-Cys-Thr-NH$_2$;

Ac-Cys-Lys-Asn-4-Cl-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Ser-D-Cys-NH$_2$;

Bmp-Tyr-D-Trp-Lys-Val-Cys-Thr-NH$_2$;

Bmp-Tyr-D-Trp-Lys-Val-Cys-Phe-NH$_2$;

Bmp-Tyr-D-Trp-Lys-Val-Cys-p-Cl-Phe-NH$_2$;

Bmp-Tyr-D-Trp-Lys-Val-Cys-β-Nal-NH$_2$;

H-D-β-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH$_2$;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH$_2$;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-β-Nal-NH$_2$;

H-pentafluoro-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH$_2$;

Ac-D-β-Nal-Cys-pentafluoro-Phe-D-Trp-Lys-Val-Cys-Thr-NH$_2$;

H-D-β-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-β-Nal-NH$_2$;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Val-Cys-β-Nal-NH$_2$;

H-D-β-Nal-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH$_2$;

H-D-p-Cl-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH$_2$;

Ac-D-p-Cl-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH$_2$;

H-D-Phe-Cys-β-Nal-D-Trp-Lys-Val-Cys-Thr-NH$_2$;

H-D-Phe-Cys-Tyr-D-Trp-Lys-Cys-Thr-NH$_2$;

cyclo (Pro-Phe-D-Trp-N-Me-Lys-Thr-Phe);

cyclo (Pro-Phe-D-Trp-N-Me-Lys-Thr-Phe);

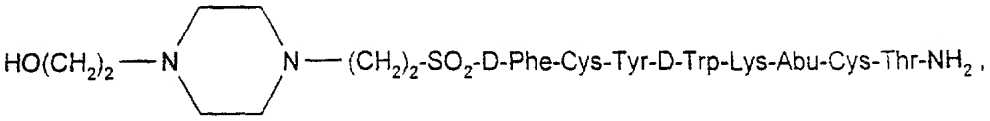
cyclo (Pro-Phe-D-Trp-Lys-Thr-N-Me-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-Lys-Thr-Phe);
cyclo (Pro-Tyr-D-Trp-Lys-Thr-Phe);
cyclo (Pro-Phe-D-Trp-Lys-Thr-Phe);
cyclo (Pro-Phe-L-Trp-Lys-Thr-Phe);
cyclo (Pro-Phe-D-Trp(F)-Lys-Thr-Phe);
cyclo (Pro-Phe-Trp(F)-Lys-Thr-Phe);
cyclo (Pro-Phe-D-Trp-Lys-Ser-Phe);
cyclo (Pro-Phe-D-Trp-Lys-Thr-p-Cl-Phe);
cyclo (D-Ala-N-Me-D-Phe-D-Thr-D-Lys-Trp-D-Phe);
cyclo (D-Ala-N-Me-D-Phe-D-Val-Lys-D-Trp-D-Phe);
cyclo (D-Ala-N-Me-D-Phe-D-Thr-Lys-D-Trp-D-Phe);
cyclo (D-Abu-N-Me-D-Phe-D-Val-Lys-D-Trp-D-Tyr);
cyclo (Pro-Tyr-D-Trp-t-4-AchxAla-Thr-Phe);
cyclo (Pro-Phe-D-Trp-t-4-AchxAla-Thr-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-Lys-Val-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-t-4-AchxAla-Thr-Phe);
cyclo (Pro-Tyr-D-Trp-4-Amphe-Thr-Phe);
cyclo (Pro-Phe-D-Trp-4-Amphe-Thr-Phe);
cyclo (N-Me-Ala-Tyr-D-Trp-4-Amphe-Thr-Phe);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba-Gaba);
cyclo (Asn-Phe-D-Trp-Lys-Thr-Phe);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-$NH(CH_2)_4CO$);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-β-Ala);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-D-Glu)-OH;
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe);
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-Gly);
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gly);
cyclo (Asn-Phe-Phe-D-Trp(F)-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp(NO_2)-Lys-Thr-Phe-Gaba);
cyclo (Asn-Phe-Phe-Trp(Br)-Lys-Thr-Phe-Gaba);

cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Phe(I)-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys-Thr-Tyr(But)-Gaba);
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Pro-Cys)-OH;
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Pro-Cys)-OH;
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-Tpo-Cys)-OH;
cyclo (Bmp-Lys-Asn-Phe-Phe-D-Trp-Lys-Thr-Phe-Thr-MeLeu-Cys)-OH;
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-Phe-Gaba);
cyclo (Phe-Phe-D-Trp-Lys-Thr-Phe-D-Phe-Gaba);
cyclo (Phe-Phe-D-Trp(5F)-Lys-Thr-Phe-Phe-Gaba);
cyclo (Asn-Phe-Phe-D-Trp-Lys(Ac)-Thr-Phe-NH-$(CH_2)_3$-CO);
cyclo (Lys-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba);
cyclo (Lys-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba); or
cyclo (Orn-Phe-Phe-D-Trp-Lys-Thr-Phe-Gaba) or a pharmaceutically acceptable salt thereof.

86. A method according to claim 2 wherein the somatostatin agonist is D-β-Nal-Cys-Tyr-D-Trp-Lys-Thr-Cys-Thr-NH_2 or a pharmaceutically acceptable salt thereof.

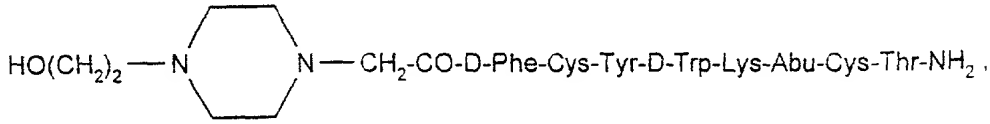
87. A method according to claim 2 wherein the somatostatin agonist is H-Cys-Phe-Phe-D-Trp-Lys-Thr-Phe-Cys-NH_2 or a pharmaceutically acceptable salt thereof.

88. A method according to claim 2 wherein the somatostatin agonist is



or a pharmaceutically acceptable salt thereof.

89. A method according to claim 2 wherein the somatostatin agonist is



or a pharmaceutically acceptable salt thereof.

90. A method according to claim 2 wherein the somatostatin agonist is D-Phe-cyclo(Cys-Phe-D-Trp-Lys-Thr-Cys)-Thr-ol or a pharmaceutically acceptable salt thereof.

91. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in the kidney.

92. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in the lung.

93. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in the liver.

94. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in the skin.

95. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is of the central nervous system.

96. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in bone or bone marrow.

97. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in the cardiovascular system.

98. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in an endocrine organ.

99. A method according to claim 57 wherein the fibrosis induced by a drug or a combination of drugs is in the gastrointestinal system.

100. A method according to claim 58 wherein the fibrosis induced by a disease state is in the kidney.

101. A method according to claim 58 wherein the fibrosis induced by a disease state is in the lung.

102. A method according to claim 58 wherein the fibrosis induced by a disease state is in the liver.

103. A method according to claim 58 wherein the fibrosis induced by a disease state is in the skin.

104. A method according to claim 58 wherein the fibrosis induced by a disease state is of the central nervous system.

105. A method according to claim 58 wherein the fibrosis induced by a disease state is in bone or bone marrow.

106. A method according to claim 58 wherein the fibrosis induced by a disease state is in the cardiovascular system.

107. A method according to claim 58 wherein the fibrosis induced by a disease state is in an endocrine organ.

108. A method according to claim 58 wherein the fibrosis induced by a disease state is in the gastrointestinal system.

109. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in the kidney.

110. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in the lung.

111. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in the liver.

112. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in the skin.

113. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is of the central nervous system.

114. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in bone or bone marrow.

115. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in the cardiovascular system.

116. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in an endocrine organ.

117. A method according to claim 59 wherein the fibrosis induced by an environmental or an industrial factor is in the gastrointestinal system.

118. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in the kidney.

119. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in the lung.

120. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in the liver.

121. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in the skin.

122. A method according to claim 60 wherein the fibrosis induced by an immune reaction is of the central nervous system.

123. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in bone or bone marrow.

124. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in the cardiovascular system.

125. A metnod according to claim 60 wherein the fibrosis induced by an immune reaction is in an endocrine organ.

126. A method according to claim 60 wherein the fibrosis induced by an immune reaction is in the gastrointestinal system.

127. A method according to claim 2 wherein the fibrosis is induced by a wound.

128. A method according to claim 127 wherein the fibrosis induced by a wound is in the kidney.

129. A method according to claim 127 wherein the fibrosis induced by a wound is in the lung.

130. A method according to claim 127 wherein the fibrosis induced by a wound is in the liver.

131. A method according to claim 127 wherein the fibrosis induced by a wound is in the skin.

132. A method according to claim 127 wherein the fibrosis induced by a wound is of the central nervous system.

133. A method according to claim 127 wherein the fibrosis induced by a wound is in bone or bone marrow.

134. A method according to claim 127 wherein the fibrosis induced by a wound is in the cardiovascular system.

135. A method according to claim 127 wherein the fibrosis induced by a wound is in an endocrine organ.

136. A method according to claim 127 wherein the fibrosis induced by a wound is in the gastrointestinal system.

137. A pharmaceutical composition useful for inhibiting fibrosis in a patient which comprises a pharmaceutically acceptable carrier and an effective amount of somatostatin, somatostatin agonist or a pharmaceutically acceptable salt thereof.

138. A pharmaceutical composition according to claim 137 wherein the composition comprises a somatostatin agonist or a pharmaceutically acceptable salt thereof.

139. A pharmaceutical composition useful for inhibiting overexpression of TGF-β which comprises a pharmaceutically acceptable carrier and an effective amount of somatostatin, somatostatin agonist or a pharmaceutically acceptable salt thereof.

140. A pharmaceutical composition according to claim 139 wherein the composition comprises a somatostatin agonist or a pharmaceutically acceptable salt thereof.

141. A method of claim 2, wherein said somatostatin agonist is administered orally.